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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/563,929	01/09/2006	Peter-Andre Redert	NL030816	3615

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

NGUYEN, PHU K

ART UNIT	PAPER NUMBER
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2628

MAIL DATE	DELIVERY MODE
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09/21/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/563,929	Applicant(s) REDERT, PETER-ANDRE	
	Examiner Phu K. Nguyen	Art Unit 2628	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 January 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

PHU K. NGUYEN
PRIMARY EXAMINER
GROUP 2300

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Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 5/3/07.

- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

The "Documents submitted with 371 Applications" filed on 1/09/2007 are missing from PTO's record. Applicant is requested to resubmitted these documents.

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The calculation of the claimed "probabilities that the corresponding portions of the scaled three-dimensional output model (210-224) are visible in a two-dimensional view of the scaled three-dimensional output model, the determining being based on a projection of the three-dimensional input model (200-208) in a viewing direction" is not sufficiently showed. Applicant did mention such calculation in figures 3A-3C, but there is insufficient information of how it is quantitatively (emphasis added) done.

Claims 1-10 are rejected under 35 U.S.C. 112, first paragraph, as based on a disclosure which is not enabling. "An autostereoscopic display device" (paragraph [0046]) is critical or essential to the practice of the invention, but not included in the

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claim(s) is not enabled by the disclosure. See *In re Mayhew*, 527 F.2d 1229, 188

USPQ 356 (CCPA 1976).

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Prior Art (paragraph [0008]) in view of LIM (6,690,373).

As per claim 1, Lim teaches the claimed "method of scaling a three-dimensional input model (200-208) into a scaled three-dimensional output model (210-224) comprising geometrically transforming portions of the three-dimensional input model into the respective portions of the scaled three-dimensional output model" (the Prior Art, paragraph [0008]). It is noted that the Prior Art does not teach "determining, based on a projection of the three-dimensional input model (200-208) in a viewing direction, for portions of the three-dimensional input model (200-208) respective probabilities that the corresponding portions of the scaled three-dimensional output model (210-224) are visible in a two-dimensional view of the scaled three-dimensional output model" as claimed. However, the calculation for such "probabilities" is well known in the art (Lim, column 19, lines 1-24; each surface would then have its own probability value for being visible). It would have been obvious in view of the teaching of Lim, to configure the Prior Art (paragraph [0008]) as claimed because of the improvement of processing

speed for rendering the 3D object (Lim, column 19, lines 22-24).

Claim 2 adds into claim 1 "determining the probability that the first one of the portions is visible, is based on comparing a first value of a first coordinate of the first one of the portions with a second value of the first coordinate of a second one of the portions" (Lim, column 8, lines 25-62).

Claim 3 adds into claim 2 "determining the probability that a first one of the portions is visible, is based on capabilities of a display device (100) on which the three-dimensional scaled output model (210-224) will be displayed" (Lim, column 9, lines 6-20, column 12, lines 25-56).

Claim 4 adds into claim 3 "the capabilities of the display device (100) correspond to a maximum viewing angle and a depth-range of the display device (100)" (Lim, column 9, lines 6-20, column 12, lines 25-56).

Claim 5 adds into claim 1 "the geometrically transforming the portions of the three-dimensional input model into the respective portions of the scaled three-dimensional output model on basis of the respective probabilities comprise one of translation, rotation or deformation" (the Prior Art, paragraph [0008]).

Claim 6 adds into claim 1 "computing the projection (302) of the three-dimensional input model (1-8) by means of a z-buffer stack (300); indicating which of

the z-buffer stack elements are visible in the projection by means of comparing z-values of pairs of z-buffer stack elements having mutually equal x-values and mutually equal y-values; determining which groups of z-buffer stack elements form the respective portions of the three-dimensional input model (1-8), by means of segmentation of the z-buffer stack elements; and indicating the probability of visibility of each z-buffer stack element which is part of a group of z-buffer stack elements comprising a further z-buffer stack element which is visible" (Lim, figure 5; and column 9, lines 6-20, column 12, lines 25-56, column 15, lines 11-55).

Claim 7 adds into claim 6 "determining for each array of z-buffer stack elements having mutually equal x-values and mutually equal y-values a corresponding minimum z-value and maximum z-value; and computing scaled z-values for the z-buffer stack elements on basis of the respective minimum z-values and maximum z-values and the depth-range of the display device (100)" (Lim, figure 5; and column 9, lines 6-20, column 12, lines 25-56, column 15, lines 11-55).

Claim 8 adds into claim 7 "determining minimum z-values is based on a morphologic operation" which is obvious in view of non-linear filters used in the Fuzzy operation (see Prior Art in paragraph [0074]).

Claims 9-10 claim a scaling unit based on the method of claims 1-8; therefore, they are rejected under the same reason.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Phu K. Nguyen whose telephone number is (571) 272 7645. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Razavi can be reached on (571) 272 7664. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Phu K. Nguyen
September 12, 2007


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